

AMENDMENT

Claims 1-128 (canceled).

129. (currently amended) A method for displaying an image projected from a liquid crystal device which includes a first liquid crystal light valve, a second liquid crystal light valve and a third liquid crystal light valve, comprising:

[a] producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

~~[b] converting the randomly changing orientations of said primary beam of light to having substantially the same selected predetermined orientation of a chosen component of the electric field vectors without discarding half of the light;~~

[eb] separating the primary beam of light into two or more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beam or beams;

[dc] forming optical light paths between the light source and the three liquid crystal light valves which are unequal in length and based on luminous intensity of the primary colors associated with respective light valve produced by the light source;

~~[d] prior to step [e], adjusting at least one of the two or more primary color beams of light by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;~~

[e] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of light by passing each of the separate primary color beams of light through a respective one of the liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal

light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] combining the altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[g] resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[h] passing at least one of the resolved beams from the single collinear beam of light to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

130. (currently amended) A system for displaying an image projected from a liquid crystal device which includes means for a first liquid crystal light valve, a second liquid crystal light valve and a third liquid crystal light valve, comprising:

[a] means for producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

[b] means for converting the randomly changing orientations of said primary beam of light to having substantially the same selected predetermined orientation of a chosen component of the electric field vectors without discarding half of the light;

[eb] means for separating the primary beam of light into two or more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[c] means for forming the optical light paths between the light source and the three liquid crystal light valves which are unequal in length and based on luminous intensity of the primary colors associated with respective light valve produced by the light source;

[d] prior to [e], means for adjusting at least one of the two or more primary color beams of light by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[e] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of light by passing each of the separate primary color beams of light through a respective one of the liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] means for combining the altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[g] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[h] means for passing at least one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

131. (currently amended) A projection-type color display device, comprising:

[a] means for producing a collimated primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, a substantially uniform flux intensity substantially across the initial beam of light, and a rectangular cross sectional area;

[b] means for converting the randomly changing orientations of said primary beam of light to having substantially the same selected predetermined orientation of a chosen component of the electric field vectors without discarding half of the light;

[eb] means for separating the collimated primary beam of light into the primary color beams of red, blue and green, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[c] prior to [d], means for adjusting at least one of the two or more primary color beams of light by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[d] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of red, blue and green by passing each of the separate primary color beams of red, blue and green through a respective one of a plurality of liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of red, blue and green is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[e] means for combining the altered separate primary color beams into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of red, blue and green by passing the altered separate primary color beams through a color synthesis cube having a

reflecting surface for synthesizing the red, blue and green beams into a single collinear beam of light;

[f] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[g] means for passing at least one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

Claims 132-438 (canceled).